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5514 7590 09/17/2009

FITZPATRICK CELLA HARPER & SCINTO
1290 Avenue of the Americas
NEW YORK, NY 10104-3800

EXAMINER

KAU, STEVEN Y

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 09/17/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,398

01/28/2004

Kenji Mikami

00862.023426.

2551

TITLE OF INVENTION: IMAGE FORMING APPARATUS, METHOD AND STORAGE MEDIUM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/17/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

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1290 Avenue of the Americas
NEW YORK, NY 10104-3800

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,398 01/28/2004 Kenji Mikami 00862.023426. 2551

TITLE OF INVENTION: IMAGE FORMING APPARATUS, METHOD AND STORAGE MEDIUM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/17/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
KAU, STEVEN Y	2625	358-001900

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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EXAMINER

KAU, STEVEN Y

ART UNIT

PAPER NUMBER

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DATE MAILED: 09/17/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1008 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1008 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/765,398	MIKAMI, KENJI	
	Examiner	Art Unit	
	STEVEN KAU	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/27/2009.
2. ☒ The allowed claim(s) is/are 1,4,5,8 and 9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>6/10/2009</u> 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

/Steven Kau/
Examiner, Art Unit 2625

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

DETAILED ACTION

Allowable Subject Matter

1. The following is an examiner's statement of reason for allowance.

The primary reasons for allowance for claims 1, 4, 5, 8, and 9 are the inclusion of the limitations of the image apparatus of Claim 1, the image forming method of Claim 5, and the computer-readable medium of Claim 9, for determining an object type, i.e. text or graphic and amount of colorant, or toner ink to be used, "By virtue of the features of the claimed invention, the claimed invention prevents the scattering of colorant around a rasterized text type or graphic type object, thus allowing the contours of the text and graphic type objects to be formed sharply", Page 10, Remarks, 8/27/2009.

In particular, the function of the apparatus of Claim 1, and the step of the method of claims 5 and 9, have the inclusion of the claim element, "a processing unit configured to set, i) when the type of the object rasterized by said rasterizing unit is the graphic type and a fine line correction mode is not selected based on a user operation, an amount of colorant of the graphic type object to the first colorant amount, ii) when the type of the object rasterized by said rasterizing unit is the graphic type and a fine line correction mode is selected based on a user operation, an amount of colorant of the graphic type object to the second colorant amount which is smaller than the first colorant amount, and iii) when the type of the object rasterized by said rasterizing unit is the text or image type, an amount of colorant of the text or image type object to the first colorant amount independent of whether or not the fine line correction mode is selected

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based on the user operation", where the cited limitations make the invention distinct from the prior arts.

With respect to claim 1, is directed to an image forming apparatus, prior art Mo (US 6,084,689) teaches an image forming apparatus comprising: a first determination unit configured to determine a type of an object contained in input data; a second determination unit configured to determine, in a case where the type of the object contained in the input data is determined by said first determination unit to be a text type or a graphic type, whether or not an amount of colorant of a specified color exceeds a first colorant amount when the specified color contained in the input data has been rasterized; a conversion unit configured to convert, when it is determined by said second determination unit that the amount of colorant of the specified color exceeds the first colorant amount, the specified color into a color with an amount of colorant that falls within the first colorant amount; a rasterizing unit configured to rasterize the text type or graphic type object contained in the input data with a color converted or not converted by said conversion unit, and rasterize an image type object contained in the input data without determination by said second determination unit and conversion by said conversion unit.

However, Mo alone or combining with the prior arts in the record, i.e. Moriyama (US 6,084,604) and Sugimoto (US 7,298,522) do not teach the limitations of Claim 1, recite, "a processing unit configured to set, i) when the type of the object rasterized by said rasterizing unit is the graphic type and a fine line correction mode is not selected based on a user operation, an amount of colorant of the graphic type object to the first

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colorant amount, ii) when the type of the object rasterized by said rasterizing unit is the graphic type and a fine line correction mode is selected based on a user operation, an amount of colorant of the graphic type object to the second colorant amount which is smaller than the first colorant amount, and iii) when the type of the object rasterized by said rasterizing unit is the text or image type, an amount of colorant of the text or image type object to the first colorant amount independent of whether or not the fine line correction mode is selected based on the user operation.”

In addition, applicant’s arguments, “With regards to the anticipation rejection, Mo is relied on to disclose, inter alia, determining whether or not a toner application rate for an object contained in input data exceeds a predefined toner reduction rate if the type of the object is formed uniformly of a designated color. Mo discloses a situation compensation technique for color printing that compensates for the over or under reduction of colorant levels that can result from gray component replacement (GCR) or under color removal (UCR) techniques. According to Figs. 4A to 5, when the total amount of colorant exceeds a threshold (TAC), the composite gray component composed of YMC components is replaced with the black component, if possible and, respective color components except black are reduced so that the total amount of colorant does not exceed the threshold. Mo, however, does not disclose or suggest a determination unit configured to determine a type of an object contained in input data, as recognized by the Examiner at page 7 of the Office Action. It is respectfully submitted that Mo does not disclose all of claimed feature of the invention and, therefore, does not anticipate the claimed invention, as set forth in the currently amended claims.”

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“With regards to the rejection under 35 U.S.C. § 103(a), Moriyama is relied on to disclose a determination unit which discriminates the type of object based upon an instruction contained in image data. Moriyama discloses determination is performed to determine whether black data is contained in received data in order to determine the black data should be developed with black ink or C, M and Y inks. Moriyama, however, fails to disclose or suggest a second determination unit configured to determine, in a case where the type of the object contained in the input data is determined by the first determination unit to be a text type or a graphic type, whether or not an amount of colorant of a specified color exceeds a first colorant amount when the specified color contained in the input data has been rasterized; and a conversion unit configured to convert, when it is determined by said second determination unit that the amount of colorant of the specified color exceeds the first colorant amount, the specified color into a color with an amount of colorant that falls within the first colorant amount, as recited in amended Claim 1.”

“In addition the claimed invention includes a rasterizing unit configured to rasterize the text type or graphic type object contained in the input data with a color converted or not converted by said conversion unit, and rasterize an image type object contained in the input data without determination by said second determination unit and conversion by said conversion unit, and a processing unit configured to set an amount of colorant of the object based on the object type and whether or not a fine line correction mode is selected. As described above, neither of the cited documents discloses the second determination unit, the conversion unit and the rasterizing unit

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because the cited inventions need not discriminate an object type and reduce colorant in accordance with the object type” (pages 10-11, Remarks, 6/3/2009) are persuasive.

Thus, the invention appears to be a unique and non-obviousness invention.

Claims 5 and 9 are directed to an image forming method and a computer-readable medium, respectively, and recite identical claim elements in corresponding to Claim 1.

Because of these reasons, the independent claims 1, 5, and 9 are allowable. Claims 4, and 8 are also allowable because of their dependence to claims 1, and 5, respectively.

Reference Prior Arts

2. The closest prior arts in the record are Mo (US 6,084,689), Moriyama (US 6,084,604), Sugimoto (US 7,298,522), Sugimoto (US-2003/004339), and Hanyu (US-2003/004709).

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120 and fax number is 571-270-2120. The examiner can normally be reached on M-F, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Steven Kau/
Examiner, Art Unit 2625
September 3, 2009

/King Y. Poon/
Supervisory Patent Examiner, Art
Unit 2625